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TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	10/778,009	
	Filing Date	February 11, 2004	
	First Named Inventor	Erik C. Scher	
	Group Art Unit	1753	
	Examiner Name	Unassigned	
Total Number of Pages in This Submission		Attorney Docket Number	40-001330US

ENCLOSURES (check all that apply)		
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Firm or Individual name	Jonathan Alan Quine, Reg. No. 41,261, Quine Intellectual Property Law Group, P.C.
Signature	
Date	July 14, 2004

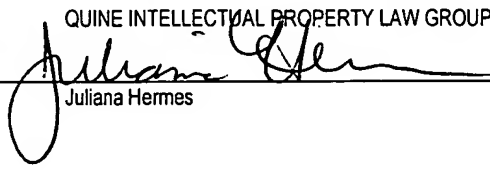
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QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C.

By


Juliana Hermes

Attorney Docket No. 40-001330US
Client Ref. No. 01-001330US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Erik C. Scher, et al.

Application No.: 10/778,009

Filed: February 11, 2004

For: NANOSTRUCTURE AND
NANOCOMPOSITE BASED
COMPOSITIONS AND
PHOTOVOLTAIC DEVICES

Examiner: Unassigned

Art Unit: 1753

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR § 1.97 and
§ 1.98

Commissioner for Patents
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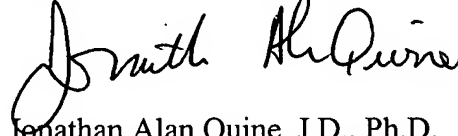
The references cited on attached form PTO-1449 are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

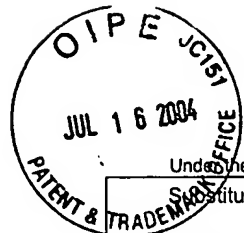
Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action on the merits per 37 CFR 1.97(b)(3). However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 50-0893. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jonathan Alan Quine". The signature is fluid and cursive, with the first name "Jonathan" and last name "Quine" clearly distinguishable.

Jonathan Alan Quine, J.D., Ph.D.
Reg. No. 41,261

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Substitute for form 1449A-B/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known

Application Number	10/778,009
Filing Date	February 11, 2004
First Named Inventor	Erik Scher
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U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, lines, Where Relevant Passages or Relevant Figures Appeal
		Number	Kind Code (if known)			
	1	5,260,957		Hakimi et al.	11-09-1993	
	2	5,293,050		Chapple-Sokol et al.	03-08-1994	
	3	5,354,707		Chapple-Sokol et al.	10-11-1994	
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	27	2002/0172820	A1	Majumdar et al.	11-21-2002	
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	30	2003/0142944	A1	Sundar et al.	07-31-2003	
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	32	2004/0026684	A1	Empedocles	02-12-2004	

FOREIGN PATENT DOCUMENTS								
Examiner Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Office	Number	Kind Code (if known)				
	33	JP	55-125681		Kuwano et al.	09-27-1980		
	34	WO	94/00887	A1	Yeda Research & Development Co. Ltd.	01-06-1994		
	35	WO	94/04497	A1	Ecole Polytechnique Federale de Lausanne (EPFL)	03-03-1994		
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	37	WO	96/10282	A1	British Telecommunications Public Limited Co.	04-04-1996		
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	39	WO	02/17362	A2	President and Fellows of Harvard College	02-28-2002		
	40	WO	02/080280	A1	The Regents of the University of California	10-10-2002		
	41	WO	03/054953	A1	The Regents of the University of	07-03-2003		

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					California		
	42	WO	03/084292	A1	Massachusetts Institute of Technology	10-09-2003	
	43	WO	03/085700	A1	Nanosys, Inc.	10-16-2003	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
	44	Alivisatos (1996) "Perspectives on the Physical Chemistry of Semiconductor NanoCrystals." <u>J. Phys. Chem.</u> 100:13226-13239.	
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	51	Dabbousi et al. (1995) "Electroluminescence from CdSe quantum-dot/polymer composites." <u>Appl. Phys. Lett.</u> 66(11):1316-1318.	
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	54	Diehl (1997) "Fraunhofer LUCOLEDs to replace lamps." <u>III-Vs Rev.</u> 10(1).	
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	56	Empedocles et al. (1996) "Photoluminescence Spectroscopy of Single CdSe Nanocrystallite Quantum Dots." <u>Phys. Rev. Lett.</u> 77(18):3873-3876.	

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57	Empedocles et al. (1997) "Quantum-Confined Stark Effect in Single CdSe Nanocrystallite Quantum Dots." <u>Science</u> , 278:2114-2117.
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67	Huynh, et al., (2002) "Hybrid Nanorod-Polymer Solar Cells" <u>Science</u> 295(5564):2426-2427
68	Jun et al. (2001) "Controlled synthesis of multi-armed CdS nanorod architectures using monosurfactant system" <u>J. Am. Chem. Soc.</u> 123, 5150-5151
69	Kortan et al. (1990) "Nucleation and Growth of CdSe on ZnS Quantum Crystallite Seeds and Vice Versa, in Inverse Micelle Media." <u>J. Am. Chem. Soc.</u> 112:1327-1332.
70	Kuno et al. (1997) "The band edge luminescence of surface modified CdSe nanocrystallites: Probing the Luminescing state." <u>J. Chem. Phys.</u> 106(23):9869-9882.
71	Lawless et al. (1995) "Bifunctional Capping of CdS Nanoparticles and Bridging to TiO ₂ ." <u>J. Phys. Chem.</u> 99:10329-10335.
72	Lee et al. (2000) "Full color Emission from II-VI Semiconductor Quantum Dot-Polymer composites." <u>Adv. Mater.</u> 12(15):1102-1105.
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		rods" <u>Nanoletters</u> 1, 349-351.	
74		Li et al. (2002) "Semiconductor nanorod liquid crystals" <u>Nano Letters</u> 2: 557-560	
75		Liu et al. (2001) "Sol-Gel Synthesis of Free-Standing Ferroelectric Lead Zirconate Titanate Nanoparticles" <u>J. Am. Chem. Soc.</u> 123, 4344	
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81		Nirmal et al. (1996) "Fluorescence Intermittency in single Cadmium Selenide Nanocrystals." <u>Nature</u> , 383-802-804.	
82		Peng et al. (1997) "Epitaxial growth of highly luminescent CdSe/CdS core/shell nanocrystals with photostability and electronic accessibility" <u>J. Am. Chem. Soc.</u> 119, 7019-7029	
83		Peng et al. (2000) "Shape control of CdSe nanocrystals" <u>Nature</u> 404, 59-61	
84		Puntes et al. (2001) "Colloidal nanocrystal shape and size control: The case of cobalt" <u>Science</u> 291, 2115-2117	
85		Scher et al. (2003) "Shape Control and Applications of Nanocrystals." <u>Philosophical Transactions of the Royal Society London, Series A.</u> 361:241-257	
86		Schlamp et al. (1997) "Improved efficiencies in light emitting diodes made with CdSe(CdS) core/shell type nanocrystals and a semiconducting polymer." <u>Journal of Applied Physics</u> 82:5837-5842.	
87		Urban et al. (2002) "Synthesis of single-crystalline perovskite nanowires composed of barium titanate and strontium titanate" <u>J. Am. Chem. Soc.</u> , 124, 1186	
88		Wu et al. (2002) "Block-by-block growth of single-crystalline Si/SiGe superlattice nanowires" <u>Nano Letters</u> 2, 83-86	
89		Yun et al. (2002) "Ferroelectric Properties of Individual Barium Titanate Nanowires Investigated by Scanned Probe Microscopy" <u>Nanoletters</u> 2, 447.	

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